

Claims

1. A device for sintering of a mold body, especially of silicon dioxide soot, in a gas-tight chamber, the device for vertical feeding of the mold body into a heating zone being equipped with a hoisting appliance extending into an inner space of the chamber through a duct, such hoisting appliance being mobile by means of a drive arranged outside of the chamber, **characterized in that** the hoisting appliance (6) has a drive shaft (15) extending through the duct (18) into the inner space (4) of the chamber (3) which is connected to the drive (16).
2. A device according to Claim 1, **characterized in that** the hoisting appliance (6) in the area of the heating zone (5) has a link chain (7, 40) consisting of individual links (27).
3. A device according to Claim 2, **characterized in that** the link chain (7, 40) can be deviated from the vertical traction direction at a deviation space (29).
4. A device according to Claim 2 or 3, **characterized in that** the links (27) of the link chain (7) are connected to each other so that any rotation around the axis of the main extension of the link chain (7) is essentially excluded.
5. A device according to at least any one of the Claims 2 to 4, **characterized in that** the links (27) of the link chain (7, 40) are provided with a fixed link (30) each or with oval eyelets (41), such fixed links (30) or oval eyelets (41) being slewably connected by an axis (35).
6. A device according to at least any one of the Claims 2 to 5, **characterized in that** the link chain (7, 40) is provided with individual rollers (28), each roller on deviation being supported on the deviation space (29).

7. A device according to at least any one of the Claims 5 or 6, **characterized in that** the external dimensions (height h) of the fixed links (30) or oval eyelets (41) are smaller than the diameter (D) of the rollers (28).
8. A device according to at least any one of the Claims 5 to 7, **characterized in that** the deviation space (29) is provided with a recess (38) for the fixed links (30) or oval eyelets (41).
9. A device according to at least one of the above Claims, **characterized in that** the deviation space (29) is arranged at a deviation wheel (11).
10. A device according to Claim 9, **characterized in that** the deviation wheel (11) is provided with a chain wheel positively engaging into the rollers (28) of the link chain (7, 40).
11. A device according to at least any one of the above Claims, **characterized in that** the deviation wheel (11) can be driven by means of the drive shaft (15).
12. A device according to at least any one of the above Claims, **characterized in that** the link chain (7, 40) is connected through a traction rope (13) to a take-up reel (14) driven by means of the drive shaft (15).
13. A device according to at least any one of the above Claims, **characterized in that** the links (27) of the links chain (7, 40) are manufactured from a tensile and temperature-resistant material.
14. A device according to at least any one of the above Claims, **characterized in that** the links (27) are manufactured from a mineral carbon material reinforced by carbon fiber.
15. A device according to at least any one of the above Claims, **characterized in that** a force-sensing device (21) is provided to determine a force acting upon the hoisting appliance (6).

16. A device according to Claim 15, **characterized in that** the force sensing device (21) is equipped with a strain control strip (24) to determine the force acting upon the deviation space (29).
17. A device according to at least any one of the above Claims, **characterized in that** the device (1) is equipped with a guiding appliance (26) for the link chain (7, 40) which excludes any deviation diagonally to the traction direction of the link chain (7, 40). *OK*
18. A device according to at least any one of the above Claims, **characterized in that** the device (1) has a catch (25) to limit the vertical hoisting movement.

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